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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/043,540	01/11/2002	John William Richardson	PU 020013	7304
<div>7590 01/09/2008</div> <div>JOSEPH S. TRIPOLI THOMSON MULTIMEDIA LICENSING INC. 2 INDEPENDENCE WAY P.O. BOX 5312 PRINCETON, NJ 08543-5312</div>				
			<div>EXAMINER</div> <div>JEAN GILLES, JUDE</div>	
			<div>ART UNIT</div> <div>2143</div>	<div>PAPER NUMBER</div>
			<div>MAIL DATE</div> <div>01/09/2008</div>	<div>DELIVERY MODE</div> <div>PAPER</div>

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.		Applicant(s)	
	10/043,540		RICHARDSON, JOHN WILLIAM	
	Examiner		Art Unit	
	Jude J. Jean-Gilles		2143	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 7-13 and 16-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 7-13 and 16-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This Action is in regards to the RCE Reply received on 10/10/2007.

Response to RCE

1. Independent claims 1 and 11 have been amended. There are no newly added claims. Claims 5, 6, 14, and 15 were previously cancelled. Claims 1-4, 7-13, and 16-19 are pending, and represent a method and apparatus for a "Physical Layer recovery in a streaming data delivery system."

In the RCE reply dated 10/10/2007, Applicants have amended the language of claim 1 and 11 and has presented a few points of contention related to Mendelson. In order to avoid future presentation of the same argument in the future, and to expedite prosecution of the application, the Examiner carefully addresses Applicants' main points of contention:

A) Applicants have amended claims 1 and 11 to recite the language "...the network control system configured for increasing the data rate of the data stream to the customer premise unit from the server for a period of time where the physical layer is restored...". The main argument of the applicant here is that Mendelson is silent with respect to losing or restoring a physical layer and thus it logically follows that Mendelson can make of changing the data rate of the data stream from the server to a CPE for a period of time when the physical layer is restored.

In light of this point of contention, the examiner thinks that Mendelson does not specifically recite losing and restoring a physical layer. New Patent of Lu is used in

combination with Mendelson to address this deficiency (see Lu, par. 0034, 0067; see rejection of claim 1 below).

B) Applicants contend that in Mendelson, great care must be taken in delivering the transport stream to the customer premises equipment at a rate which remains relatively constant with respect of the program's real time (emphasis added). Therefore, clearly, in Mendelson, what is meant by "controlled" rate is "constant" rate, and this teaches away from the present invention.

The Examiner disagrees that Mendelson teaches away from the present invention. At the contrary, the present invention, claim 1, lines 10 recites "data rate of a steady data stream " which is no different than the constant data stream disclosed by Mendelson. Mendelson does not disclose an absolutely constant data stream, but one that is steady or relatively constant (see Mendelson, column 1, lines 55-65). Whereas Mendelson does not disclose specifically how the relatively constant data rate may change, Lu teaches in details of this limitation (see Lu, par. 0067).

Examiner notes that applicant has failed in presenting claims and drawings that delineate the contours of this invention as compared to the cited prior art. Applicant has failed to clearly point out patentable novelty in view of the state of the art disclosed by the references cited that would overcome the 103(a) rejections applied against the claims, the rejection is therefore sustained.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. **Claims 1-4, 7-13, and 16-19** are rejected under 35 U.S.C. 103(a) as being unpatentable over Mendelson et al (Mendelson), Patent No. 5,745,696 A in view of Lu et al (Lu), U.S. Pub. No. 2004/0071101 A1.

Regarding **claim 1**, Mendelson teaches the invention substantially as claimed. Mendelson discloses an asynchronous transfer mode (ATM) digital document delivery system (figs. 1 and 7), comprising:

- a customer premise unit configured to permit a customer to order and receive a data stream (fig. 1, item 122; column 4, lines 19-22);
- a buffer coupled to the customer premise unit to store the data stream before transmitting the data stream to a customer (fig. 7, item 711; column 1, lines 55-65);
- a server having digital documents stored thereon for delivery to the customer through a switched ATM network (fig. 1, item 110; column 4, lines 23-33);

[and]

means for controlling a data rate of the data stream between the server and the buffer to ensure maintenance of a steady data stream from the customer premise unit to

the customer during a loss of a physical layer between the server and the customer premise unit, the means for controlling includes a network control system coupled to the server and the customer premise unit, the network control system providing control for the data rate of the data stream to the customer premise unit-from the server, and a multiplexer coupled between the customer premise unit and the network control system (fig. 7; 714; 734), the multiplexer including a signaling mechanism to alert at least one component that the physical layer is lost (column 1, lines 55-67; continue in column 2 until line 36).

In the RCE reply dated 10/10/2007, Applicants have amended the claim to recite "...the network control system configured for increasing ~~providing control~~ for the data rate of the data stream to the customer premise unit from the server for a period of time when the physical layer is restored, and a multiplexer coupled between the customer premise unit and the network control system, the multiplexer including a signaling mechanism to alert at least one component that the physical layer is lost. Nonetheless this feature is well known in the art and would have been obvious modification to the system shown by Mendelson as evidenced by Lu.

In an analogous art, Lu shows a subscriber line telecommunication system containing line connections that can be restored upon lost of connection or synchronization.

Furthermore, Lu discloses that the physical layer connection can be restored to various level of communication encompassing, decreasing, keeping the previous level, or increasing the data rate of communication between the lines (see Lu; par. 0067, 0072).

Given this feature,, a person of ordinary skill in the art would have readily recognized the desirability of modifying the system shown by Mendelson to employ the features of Lu in order to facilitate communication of filler data between the provisioned modems once the physical layer is restored as stated by Lu in par. 0066. By this rationale, claim 1 is rejected.

Regarding claims **2-4, 7-13, and 16-19**, the combination Mendelson-Lu teaches:

2. (Original) The document delivery system, as recited in claim 1, wherein the customer premise unit includes the buffer therein, the buffer including a memory storage capacity sufficient to maintain the data stream to a customer for an amount of time (see Mendelson; fig. 7, item 711; column 7, lines 30-47).
3. (Original) The document delivery system, as recited in claim 2, wherein the amount of time includes time needed to restore the physical layer (see Mendelson; fig. 7, item 711; column 7, lines 30-47).
4. (Original) The document delivery system, as recited in claim 2, wherein the amount of time includes up to 30 seconds (see Mendelson; fig. 2; column 5, lines 1-17; time interval can be a flexible variable of the clock reference).
7. (Original) The document delivery system, as recited in claim 1, further comprising virtual circuits set up between the network control system, the customer

premise unit and the multiplexer to enable communication therebetween (see Mendelson; items 132; 711; column 1, lines 36-67).

8. (Original) The document delivery system, as recited in claim 1, wherein the server is configured to deliver the data stream at a rate greater than a normal rate after the physical layer has been restored (see Lu; par. 0067, 0072).

9. (Original) The document delivery system, as recited in claim 8, wherein the server is configured to deliver the data stream at the normal rate after the buffer has been filled (see Mendelson; column 1, lines 36-67 continue in column 2 until line 46; see Lu; par. 0067, 0072).

10. (Original) The document delivery system, as recited in claim 1, wherein the customer premise unit is configured to deliver the data stream at a rate less than a normal rate when the physical layer is lost (see Lu; par. 0067, 0072).

11. (Currently Amended) A method for maintaining a data stream over an asynchronous transfer mode (ATM) network (see Mendelson; figs. 1 and 7), comprising the steps of:

providing a customer premise unit configured to permit a customer to receive a data stream (see Mendelson; fig. 1, item 122; column 4, lines 19-22);
storing a portion of the data stream in a buffer before transmitting the data

stream to a customer (see Mendelson; fig. 7, item 711; column 1, lines 55-65);
transmitting the data stream from a server through a switched ATM
network (see Mendelson; fig. 1, item 110; column 4, lines 23-33); and
controlling a data rate of the data stream between the server and the buffer
to ensure maintenance of a steady data stream from the customer premise unit to a
customer during a loss of a physical layer between the server and the customer
premise unit, the controlling includes employing a network control system coupled to the
server and the customer premise unit (see Mendelson; fig. 7; 714; 734; column 1, lines
55-67; continue in column 2 until line 46), and further comprising the step of the
network control system increasing providing control for the data rate of the data stream
to the customer premise unit from the server, a multiplexer coupled between the
customer premise unit and the network control system, and further comprising the
step of: when the physical layer is lost, signaling from the multiplexer to alert at least
one component that the physical layer is lost (see Lu; par. 0067, 0072). The same
reason to combine and motivation used for the rejection of claim 1 is also valid for claim
11. By this rationale, claim 11 is rejected.

12. (Original) The method as recited in claim 11, wherein the step of controlling
a data rate of the data stream includes maintaining an amount of data from the data
stream in the buffer to continue data flow to a customer for an amount of time after the
loss of the physical layer (see Mendelson; fig. 7, item 711; column 7, lines 30-47).

13. (Original) The method as recited in claim 12, wherein the amount of time includes time needed to restore the physical layer (see Mendelson; fig. 7, item 711; column1, lines 36-67).

16. (Original) The method as recited in claim 11, further comprising the step of setting up virtual circuits between the network control system, the customer premise unit and the multiplexer to enable communication therebetween (see Mendelson; items 132; 711; column 1, lines 36-67).

17. (Original) The method as recited in claim 11, further comprising the step of delivering the data stream from the server at a rate greater than a normal rate after the physical layer has been restored (see Lu; par. 0067, 0072).

18. (Original) The method as recited in claim 17, further comprising the step of delivering the data stream at the normal rate after the buffer has been filled (see Mendelson; column 1, lines 36-67 continue in column 2 until line 46).

19. (Original) The method as recited in claim 11, further comprising the step of delivering the data stream from the customer premise unit to a customer at a rate less than a normal rate when the physical layer is lost (see Lu; par. 0067, 0072).

Conclusion

4. Any inquiry concerning this communication or earlier communications from examiner should be directed to Jude Jean-Gilles whose telephone number is (571) 272-3914. The examiner can normally be reached on Monday-Thursday and every other Friday from 8:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan Flynn, can be reached on (571) 272-1915. The fax phone number for the organization where this application or proceeding is assigned is 571-273-3201.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-0800.

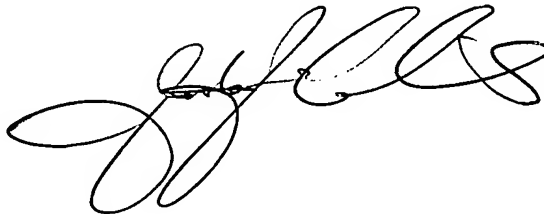
Jude Jean-Gilles

Patent Examiner

Art Unit 2143

JJG

January 02, 2008

A handwritten signature in black ink, appearing to be 'JJG' with a stylized flourish at the end.